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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,000	04/06/2000	David A. Cathey	3976US (98-0063)	7982

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03/21/2006

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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/544,000	Applicant(s) CATHEY, DAVID A.	
	Examiner Abbas I. Abdulsalam	Art Unit 2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,8,9,19 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 22 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to a communication filed on 12/12/05. Claims 1-2, 5, 8-9, 19 and 22 are pending. Claims 3-4, 6-7, 10-18, 20-21 and 23-24 are canceled.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2, 5, 8-9, 19 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreher (USPN 4551717) in view of Inobe et al. (USPN 4882581) and Park et al. (USPN 6211862).

In regard to claims 1 and 8-9, Dreher discloses a computer keyboard comprising: an enclosure member; plurality of depressible key switch (10) devices arrayed above said printed circuit board (col.2, lines 60-65); a key cap (11) mounted atop each switch device of plurality, each key cap having at least one identifying graphic symbol (20) (Fig. 3, col. 3, lines 2-3) formed on an upper surface thereof (see Figs 1-3) and luminescent material embedded within each key

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cap (11) (col. 1, lines 47-50). Further, Dreher teaches a key (10) for use on a terminal with a key cap top has a luminescent material (14) (LED) embedded with the key cap (11). However, Dreher does not teach a key cap with respect to a first material having no electrical connection thereto including one of a black material and a dark-colored non-luminescent material. Dreher also does not teach a second luminescent material different than the first material forming the identifying graphic symbol, the second luminescent material embedded within each key cap substantially throughout.

Inobe on the other hand teaches a keyboard structure in which a keyboard lumines for a certain duration after it has been irradiated with a light source for a while, thereby allowing the user to perform a key entry in the dark while viewing the display panel. Inobe teaches as shown in Fig. 5 a key mat fitting structure in which in order to display the name of keys 22, a key mat 26 made of a sheet magnetic material is laid, with labels 27 being printed on the mat surface.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dreher's key display system to adapt Inobe's keys (22) as configured with key mat (26) shown in Fig. 5 because the use of key mat helps function a keyboard in dark environments as taught by Inobe.

Dreher does not teach a keyboard with a chemical source of electrical power. Park on the other hand teaches a rechargeable battery (34) of a keyboard (30) as shown in Fig. 6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dreher's keyboard base or keyboard circuit shown in Fig. 2 to adapt Park's

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rechargeable battery (34) as a power source because the use of the rechargeable battery (34) enables a keyboard communicate wirelessly as taught by Park.

As to claim 2, Dreher teaches keys for keyboards (col. 1, lines 5-7) and all features are well known in the art.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dreher in view of Inobe et al, Park et al. and Takami (US Pat. No. 4,205,522).

In regard to claim 5, Dreher in view of Inobe et al. and Park et al has been discussed above. In addition, Dreher discloses computer keyboard comprising: an enclosure member with printed circuit board (Fig. 1), a plurality of depressible key switch devices arrayed above said printed circuit board (col.2, lines 60-65); a key cap (11) mounted atop each switch device of plurality, each key cap having at least one identifying graphic symbol (20) (Fig. 3, col. 3, lines 2-3) formed on an upper surface thereof (see Figs 1-3) and luminescent material embedded within each key cap.

Dreher does not teach a "luminescent material including tritium" within at least one symbol of key cap.

However, Takami discloses an LCD device, which includes a luminescent phosphor, the luminescent phosphor includes a tritium (see the abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ the tritium for illuminating the LCD display embedded in the key cap of Dreher because it will provide cheap natural back light source for displaying key designation and would readily understood by those skilled in the art that it would represent an alternative choice for a backlight, which advantageously does not require additional electrical power.

Allowable Subject Matter

5. Claim 19 and 22 are allowed.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulsalam whose telephone number is (571) 272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas abdulsalam

Examiner

Art Unit 2677

March 17, 2006



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600